α -NPB

β - NPD

mTADATA

Fig. 1

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HTM-1

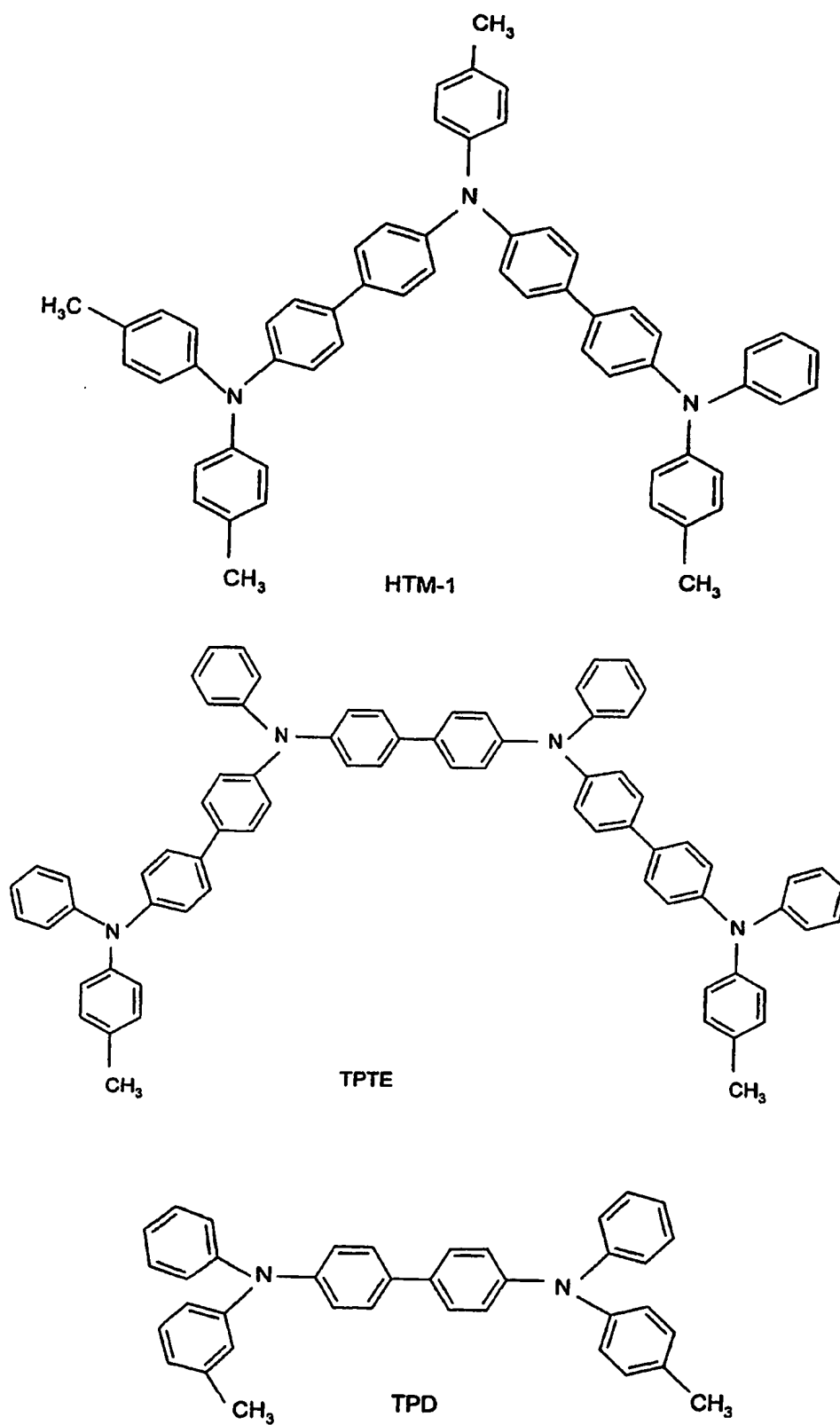

TPTE

TPD

Fig. 2

Fig. 3

Fig. 4

or

Fig. 5

Alq

Bebq

BAlq1

ZnPBO

ZnPBT

DTVb1

Fig. 6

t-Bu-PBD

BND

OXD-7

TAZ

OXD- Star

Fig. 7

Fig. 8

Fig. 9b

Fig. 9a
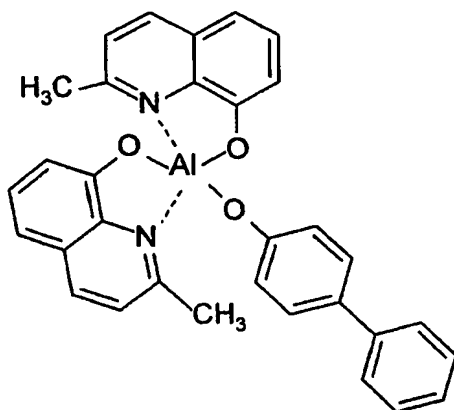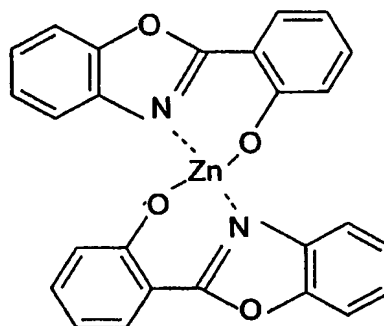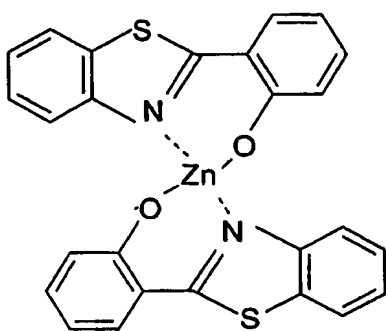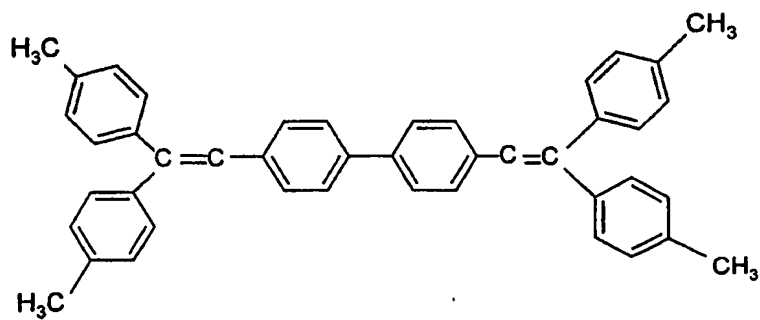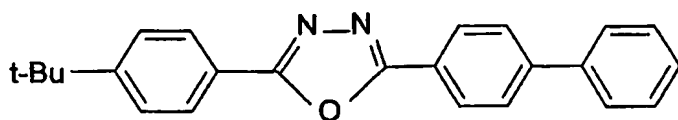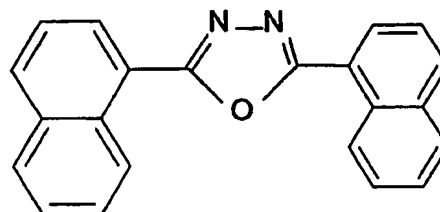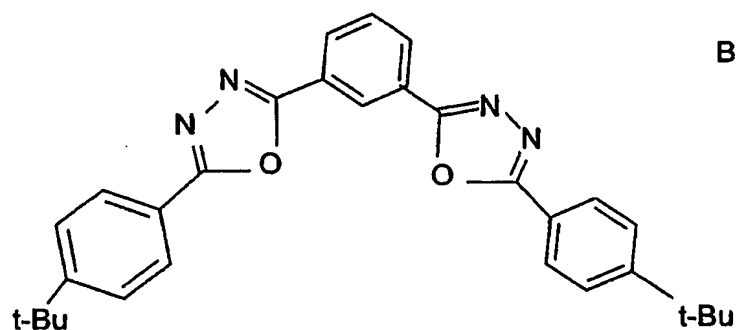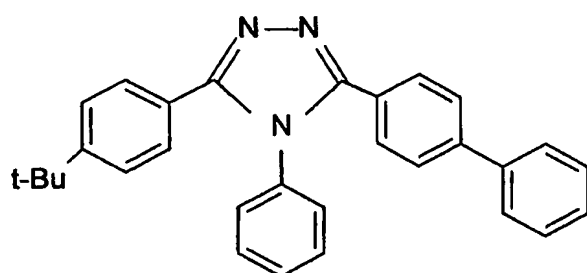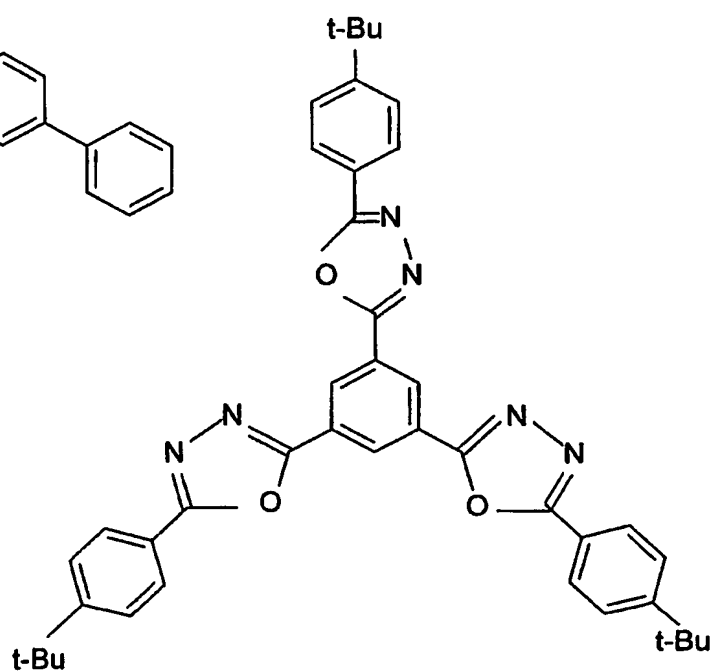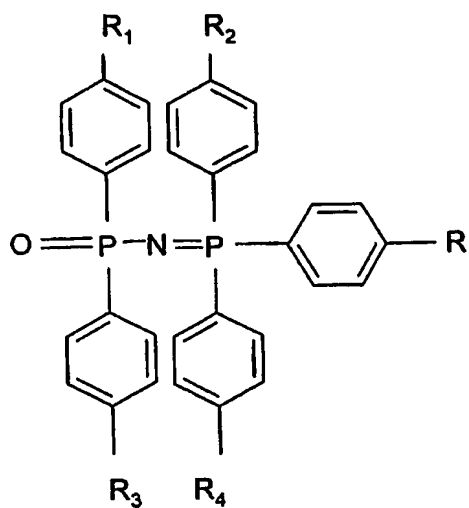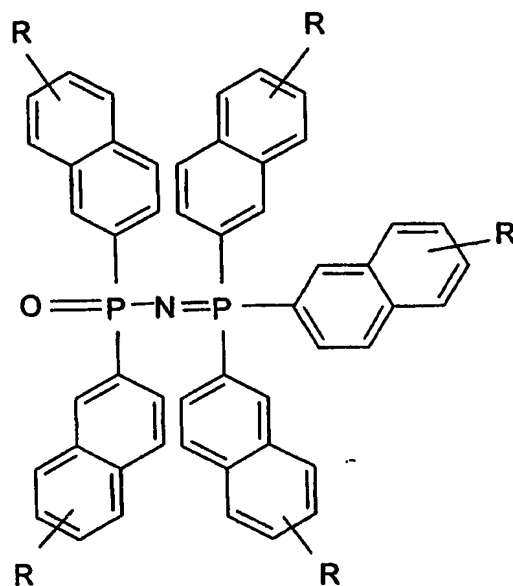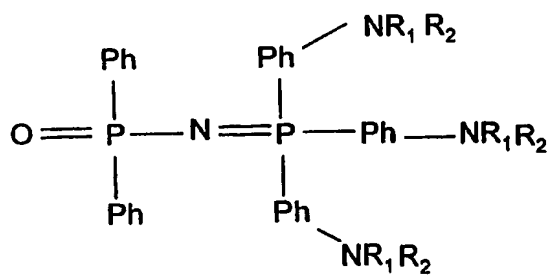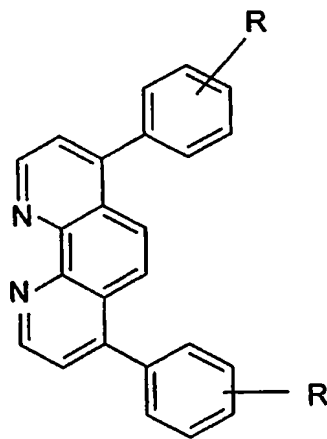

Fig. 10

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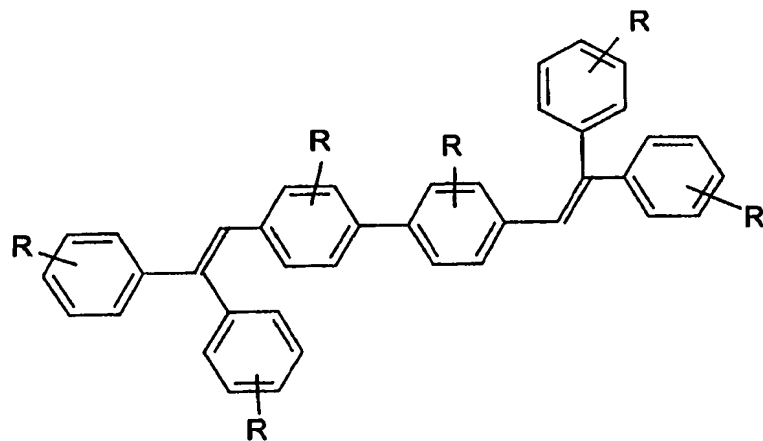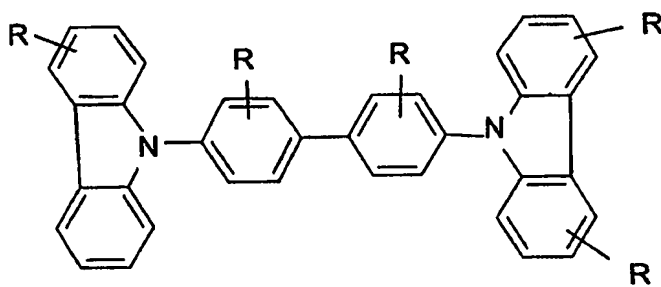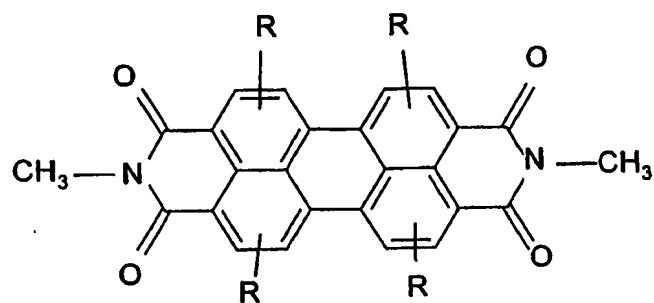
Fig. 11a
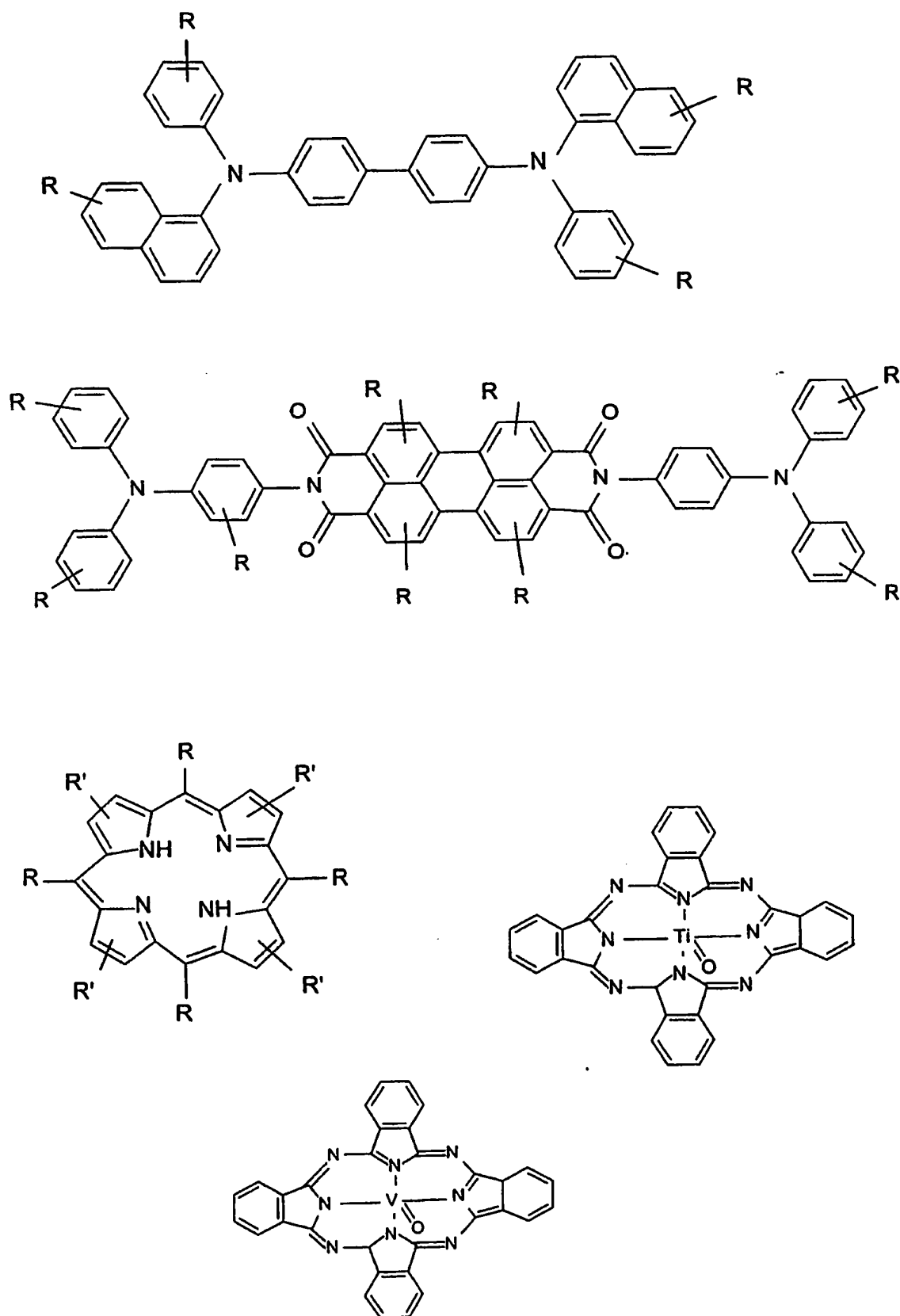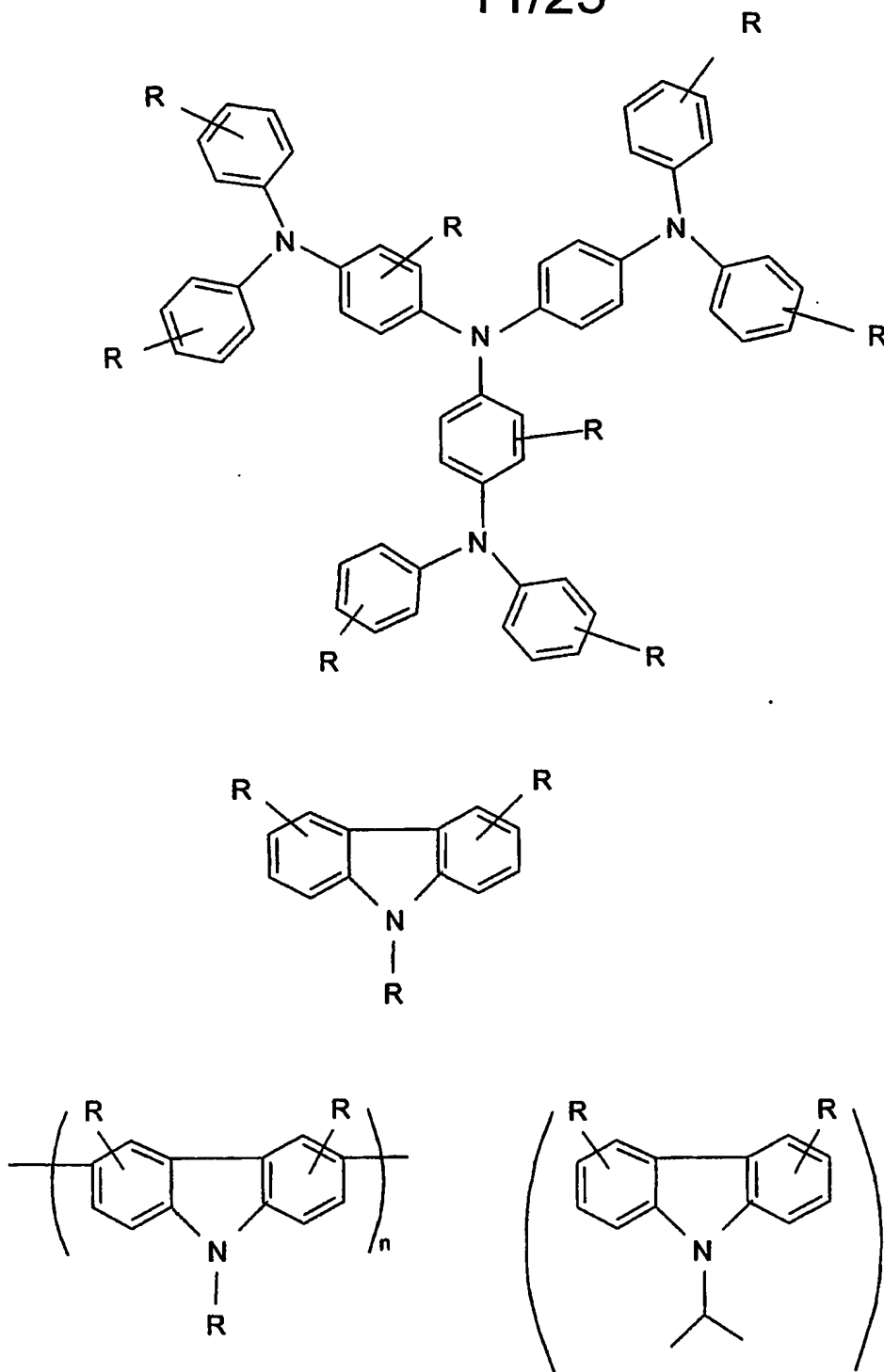
Fig. 11b

Fig. 11c
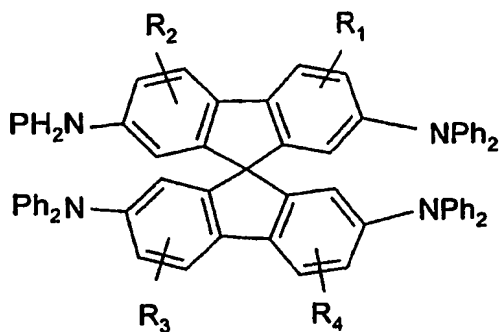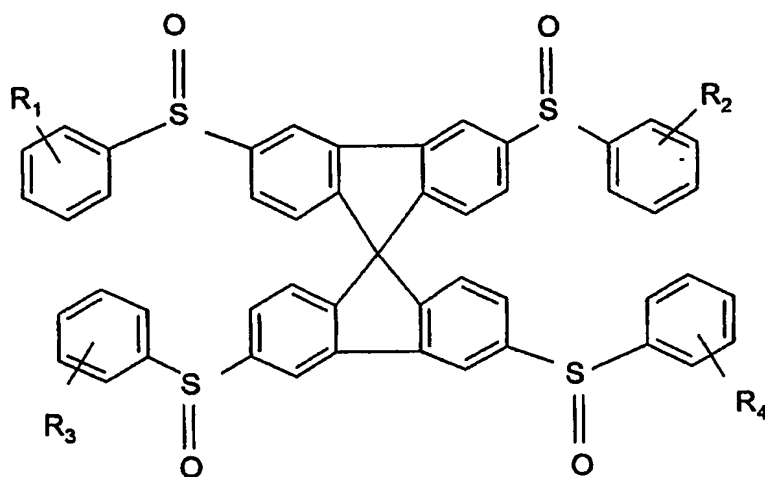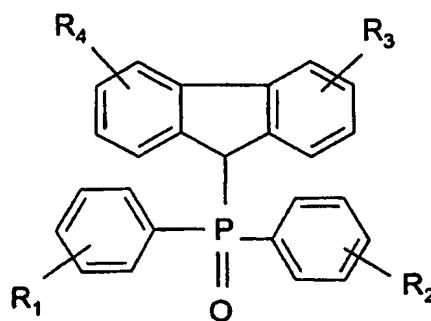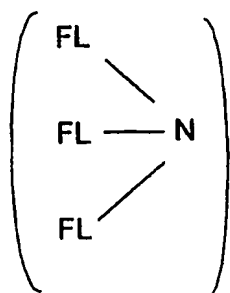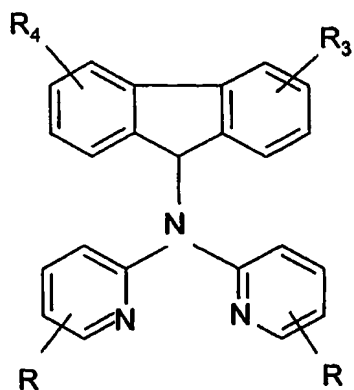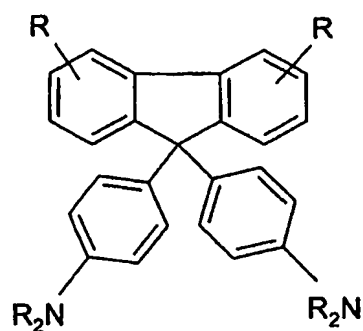
Fig. 12a

Fig. 12b

Fig. 12c
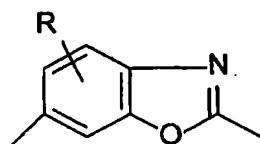
Fig. 13a
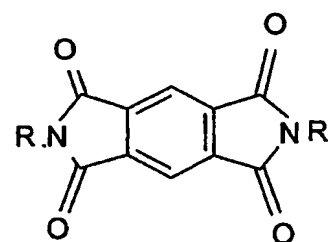
Fig. 13b
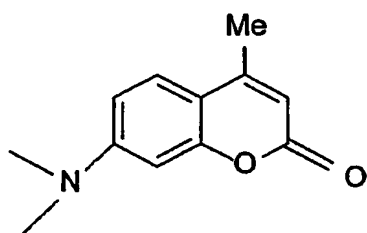
Fig. 13c
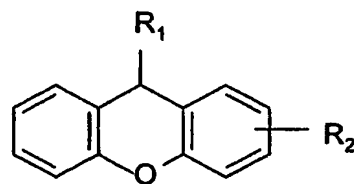
Fig. 13d
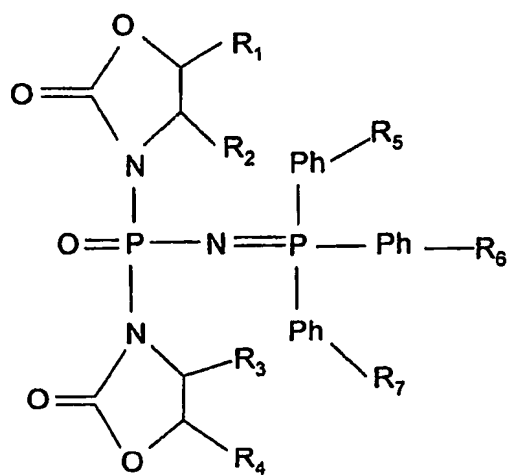
Fig. 13e
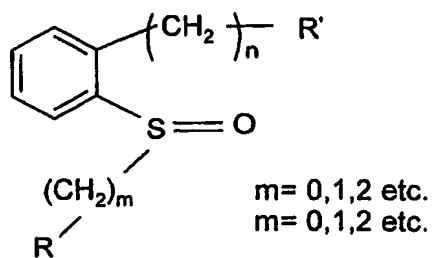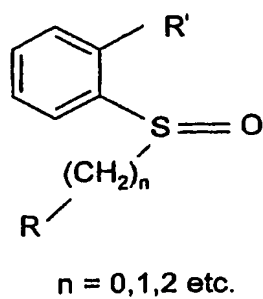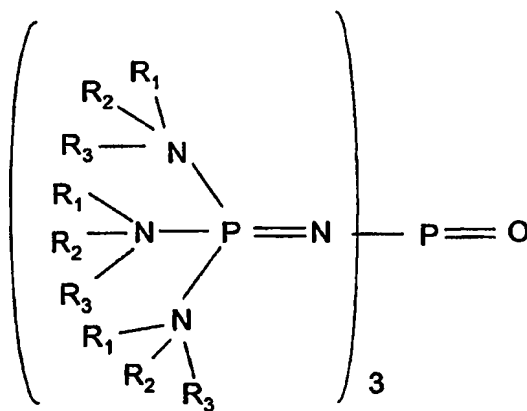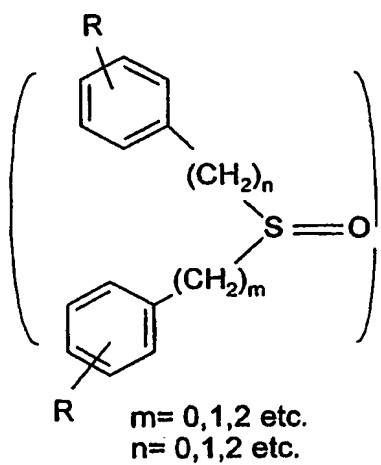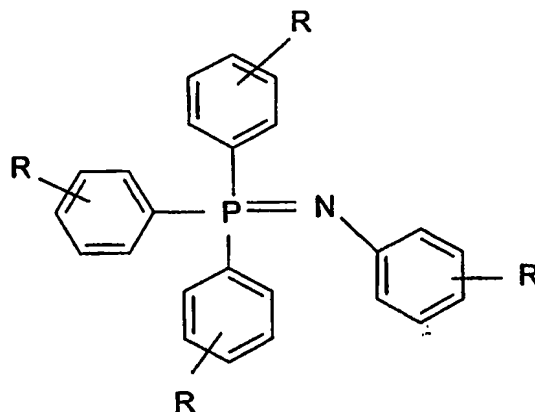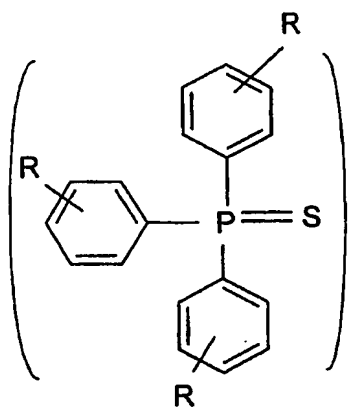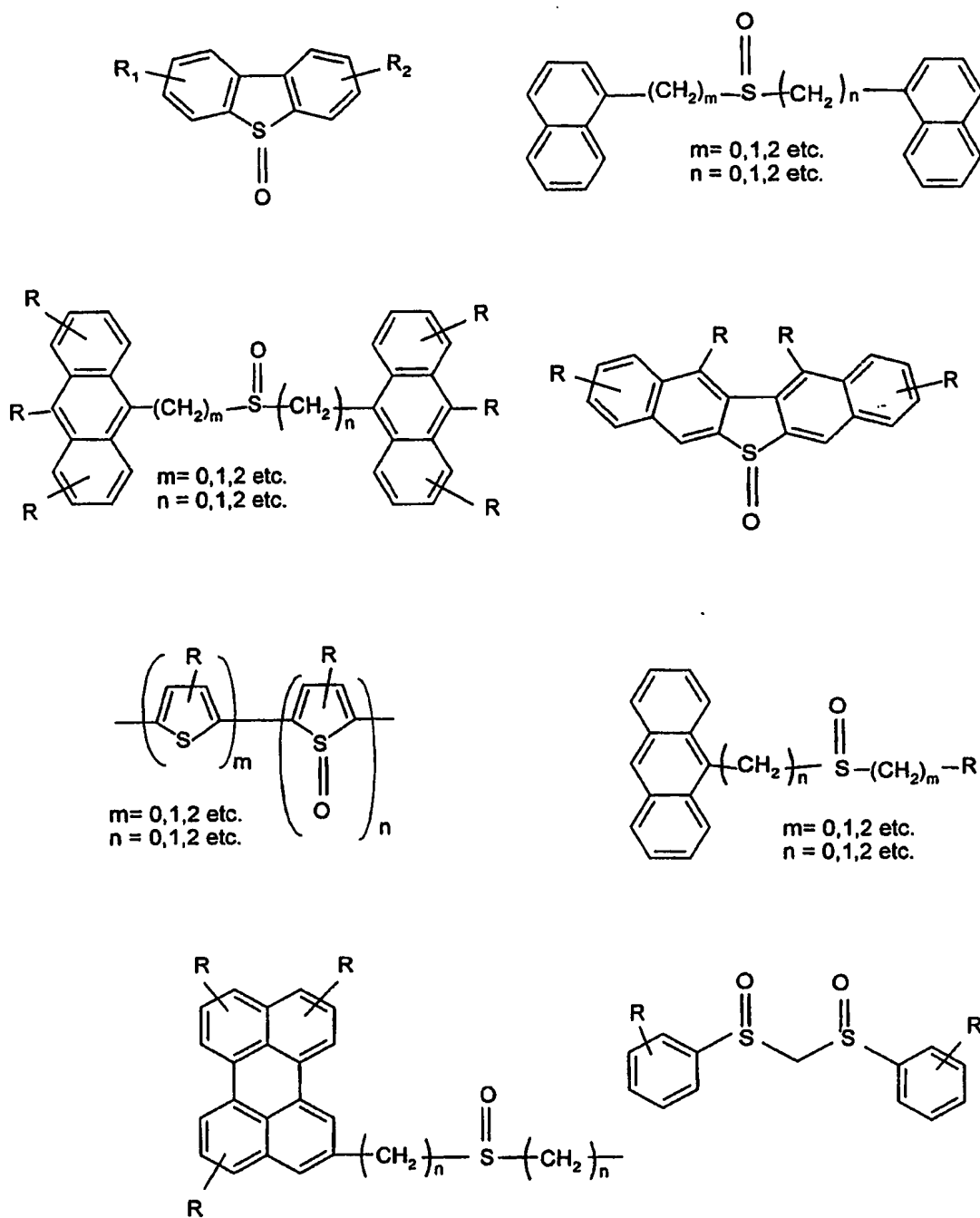
m= 0,1,2 etc.
n= 0,1,2 etc.

n = 0,1,2 etc.

m= 0,1,2 etc.
m= 0,1,2 etc.

Fig. 14

Fig. 15

ITO (H)/α-NPB (75 nm)/Tb(pyr)₃OPNP (50 nm)/BCP (20 nm)/Alq₃ (40 nm)/LiF(0.5 nm)/Al

Current Density vs Voltage

Current Efficiency vs Current Density

Luminescence vs Voltage

Luminescence vs Current Density

x = 0.294, y = 0.523 @ 169 cd m⁻²

Device ID : A917B-3
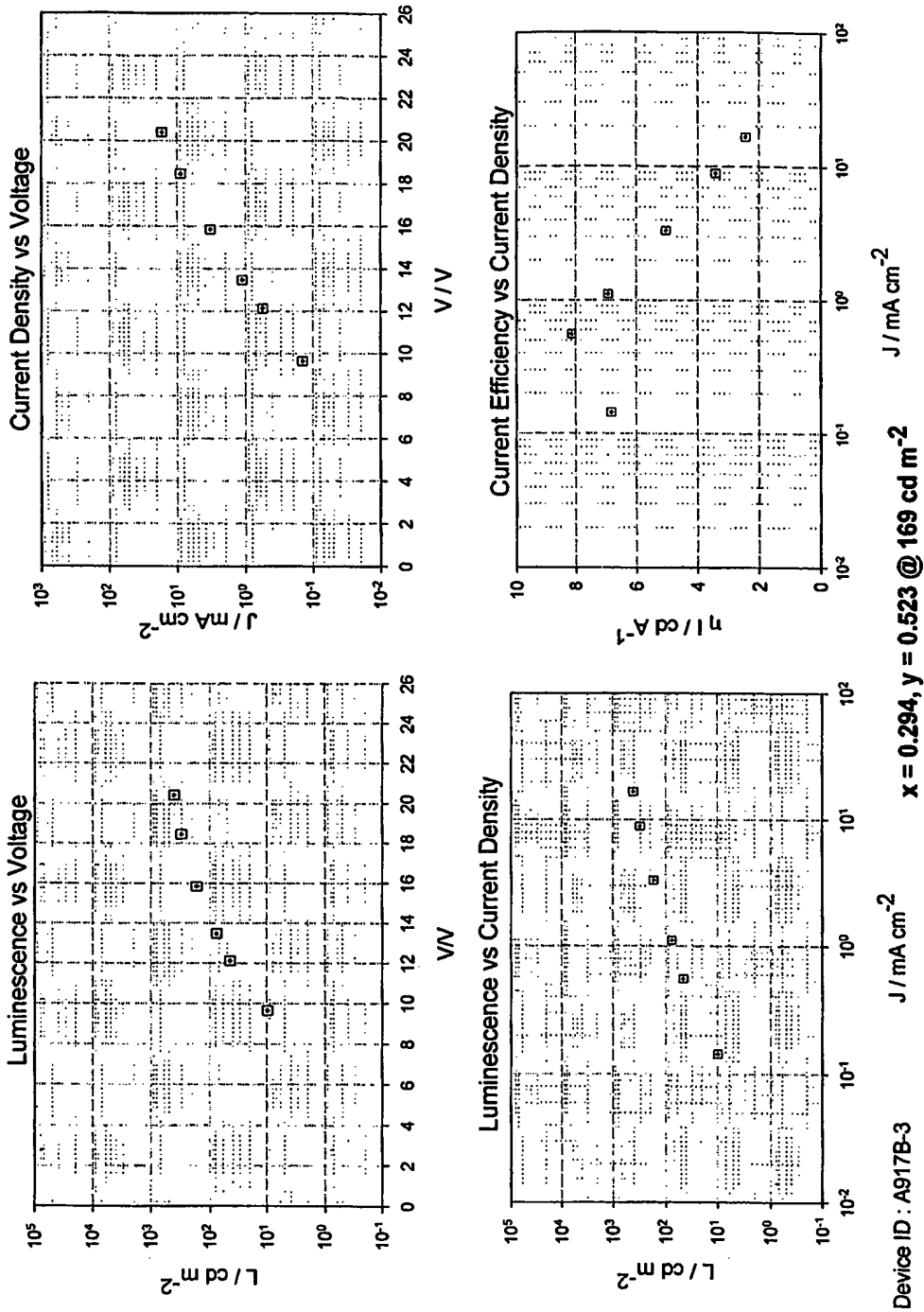
Fig. 16

ITO (H)/α-NPB (75 nm)/Tb(pyr)₃OPNP (50 nm)/BCP (20 nm)/Alq₃ (40 nm)/LiF(0.5 nm)/Al

x = 0.294, y = 0.523 @ 169 cd m⁻²

Wave length / nm

Intensity / arb

Fig. 17

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ITO (H)/α-NPB (10 nm)/Tb(pyr)₃OPNP (50 mn)/BCP (20 nm)/Alq₃ (40 nm)/LiF (0.7 nm)/Al

Current Density vs Voltage

Luminescence vs Voltage

Current Efficiency vs Current Density

Luminescence vs Current Density

x = 0.307, y = 0.534 @ 75 cd m⁻²

Device ID : A925B-3
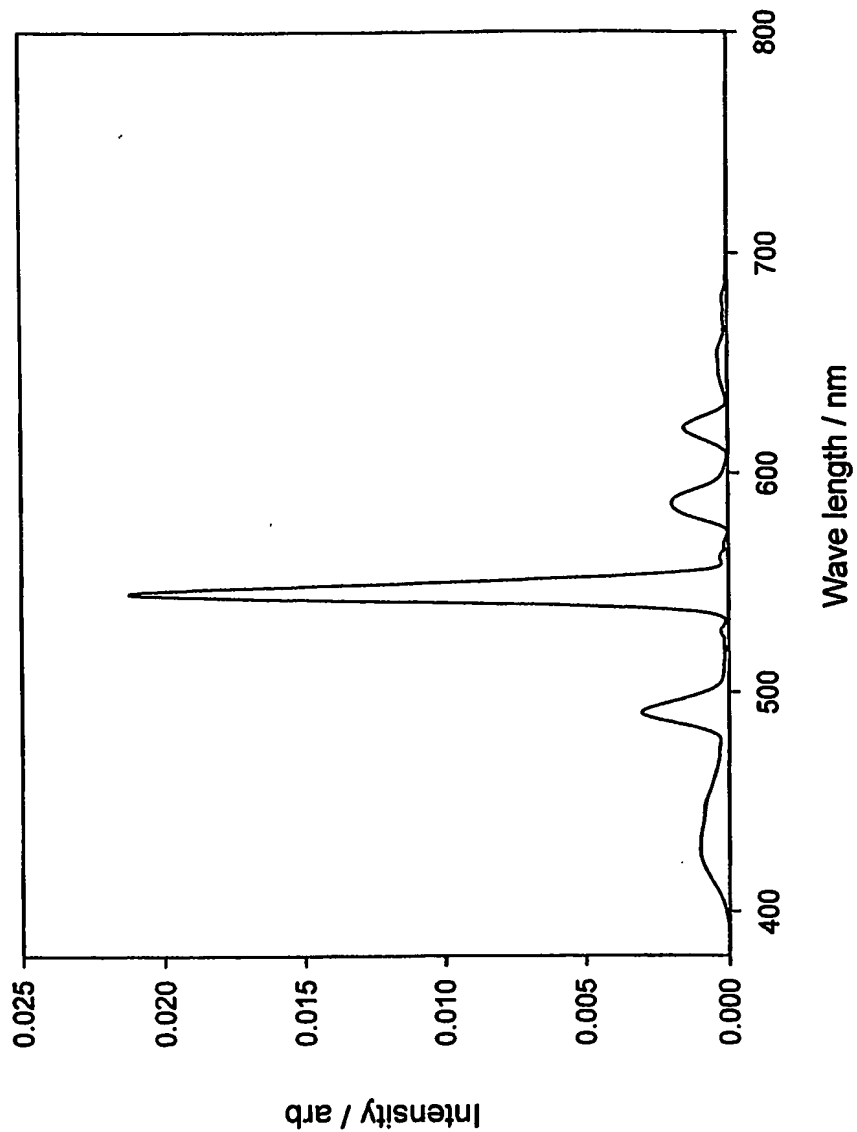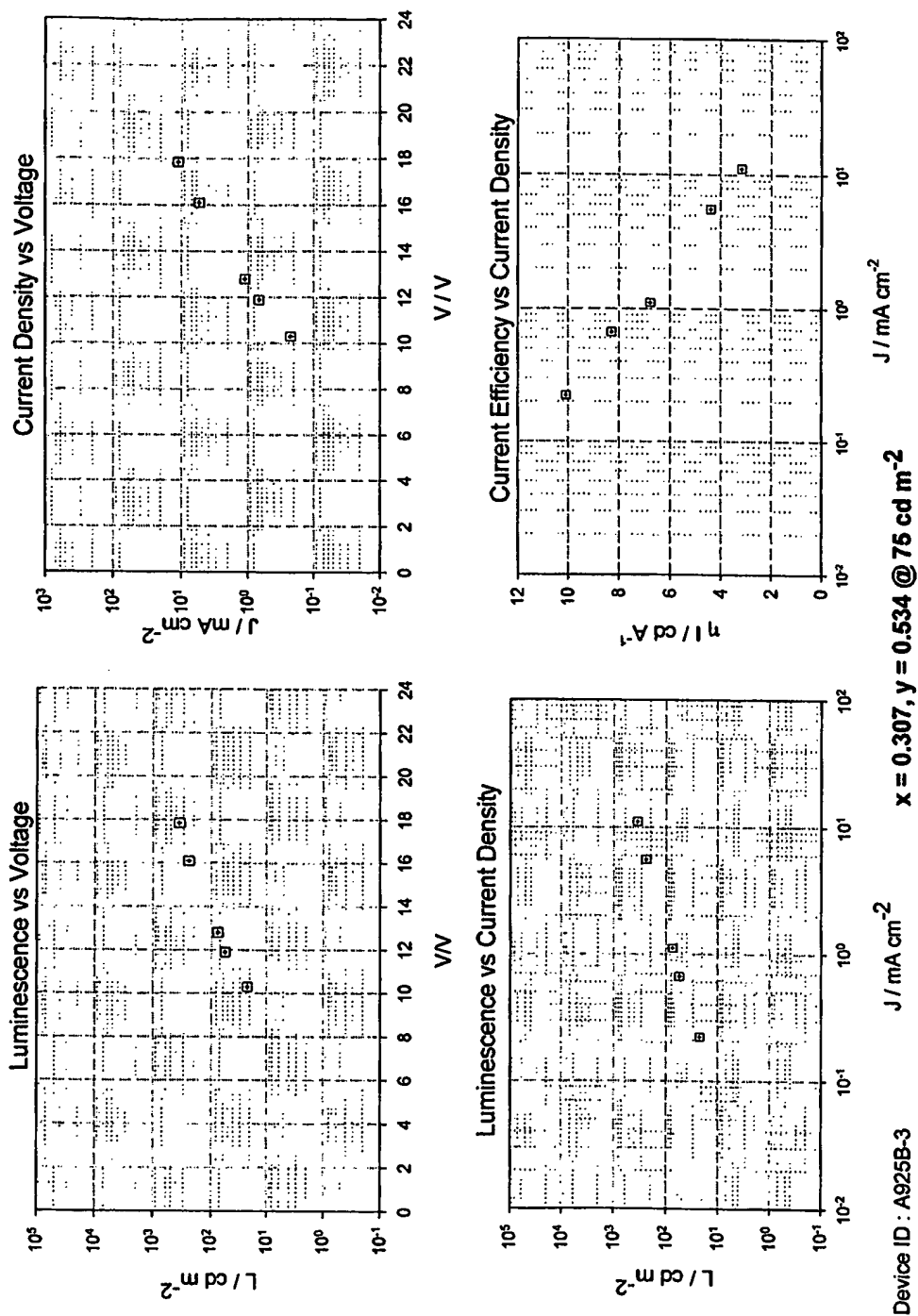
Fig. 18

ITO (H)/α-NPB (10 nm)/Tb(pyr)$_3$OPNP (50 mn)/BCP (20 mn)/Alq$_3$ (40 nm)/LiF (0.7 nm)/Al
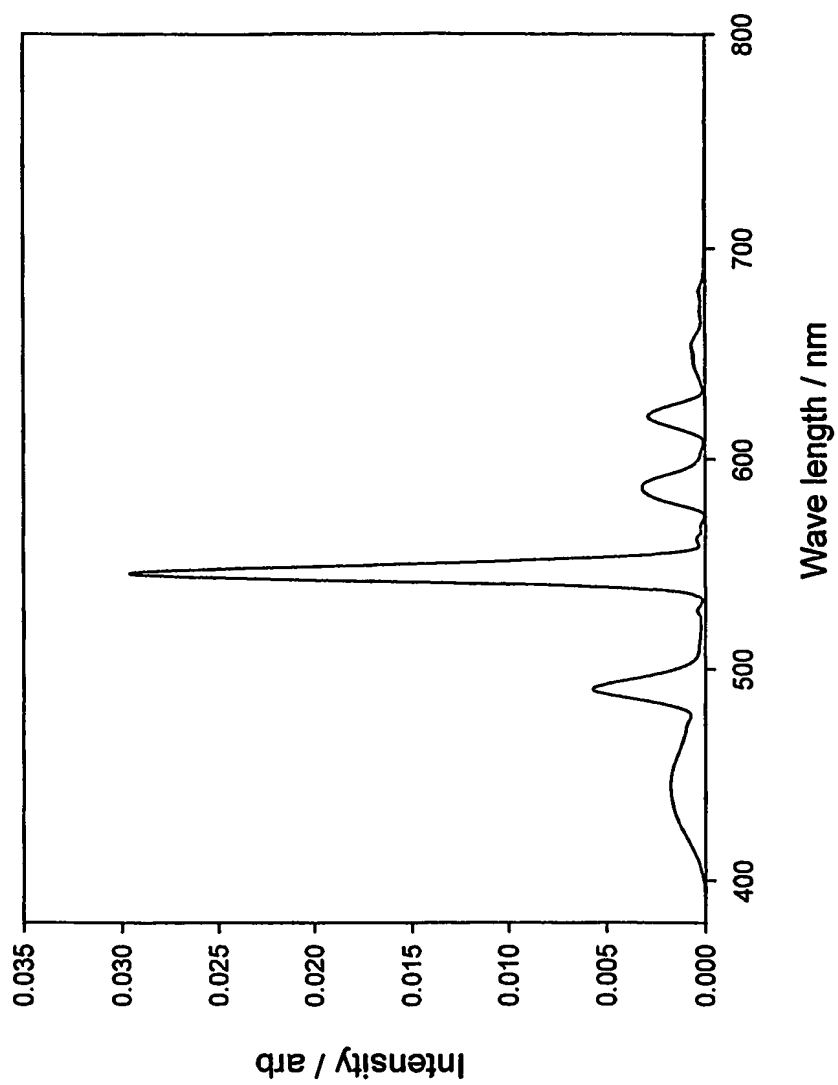
x = 0.307, y = 0.534 @ 75 cd m^{-2}

Fig. 19

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ITO (100 Ω/sqr)/CuPc (8 nm)/α-NPB (60 nm)/Ca(pyr)$_2$Phen$_2$ (30 nm)/Alq$_3$ (10 nm)/LIF (0.7 nm)/Al
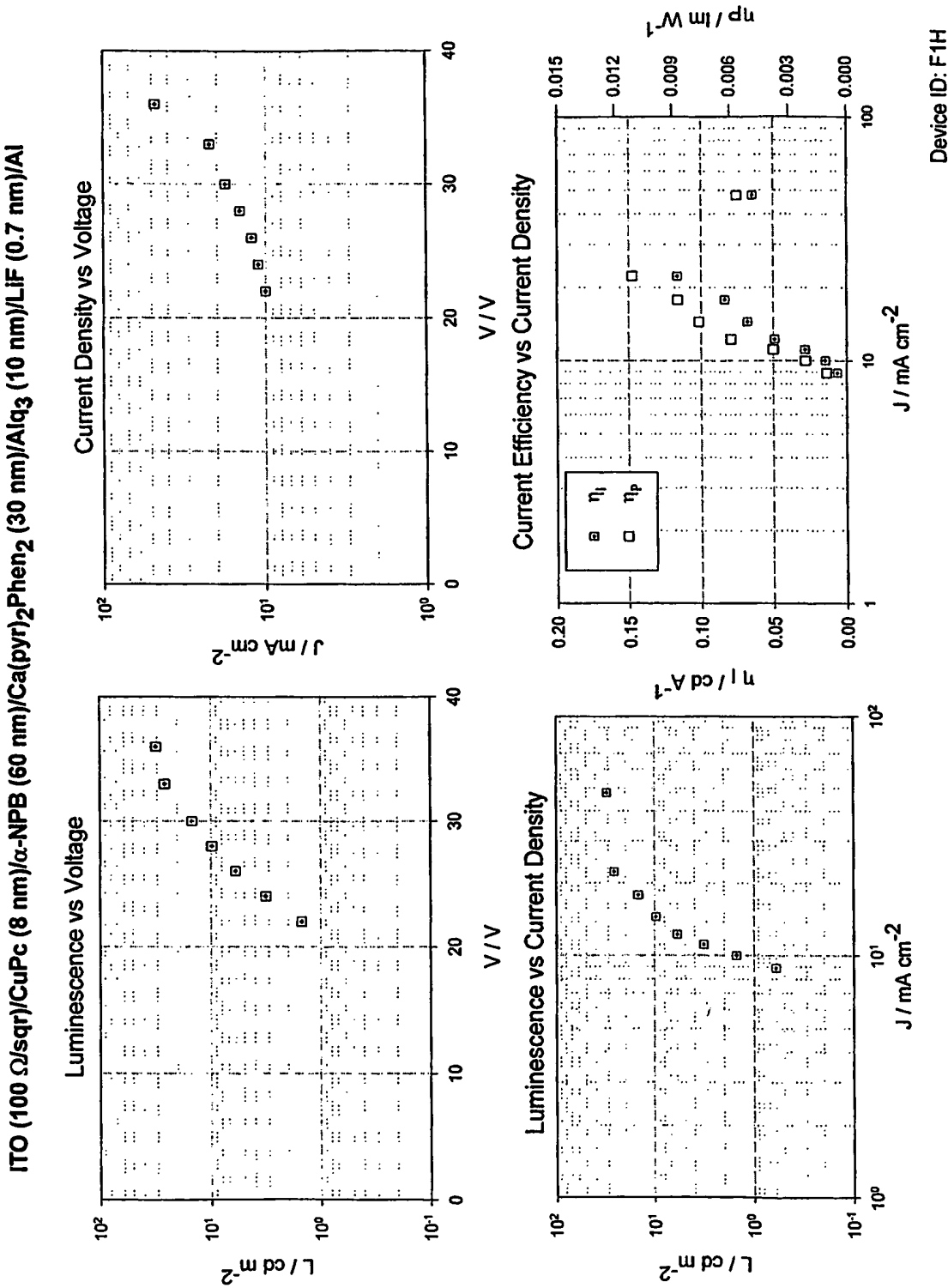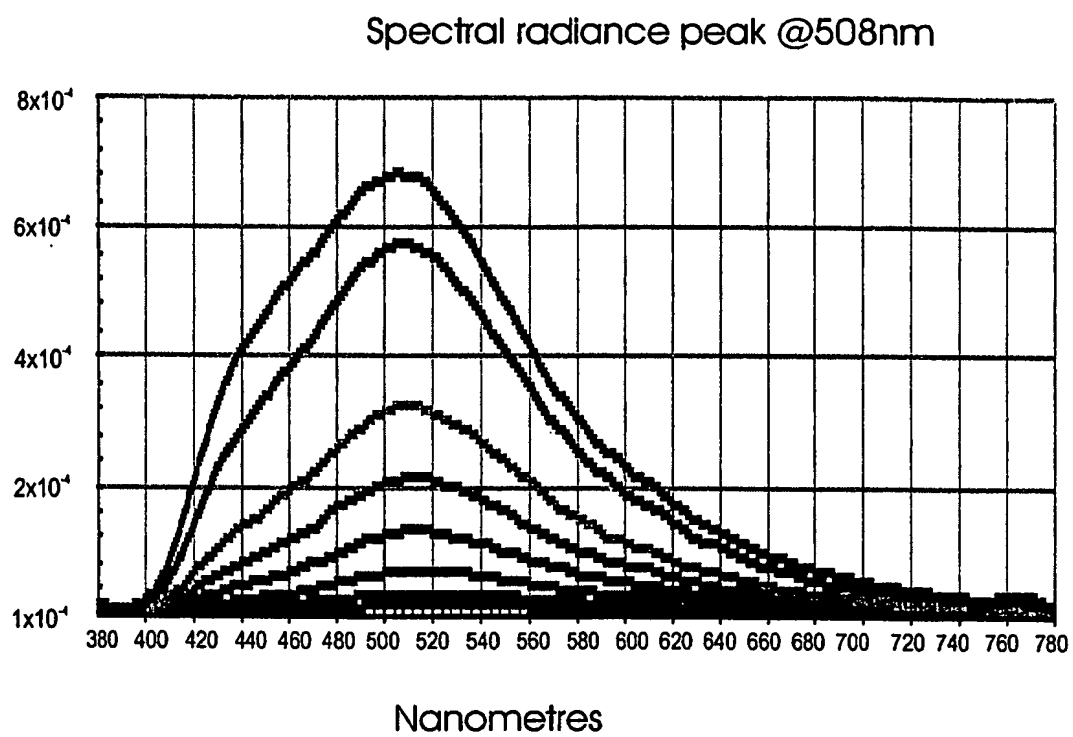
Fig. 20

Spectral radiance peak @508nm
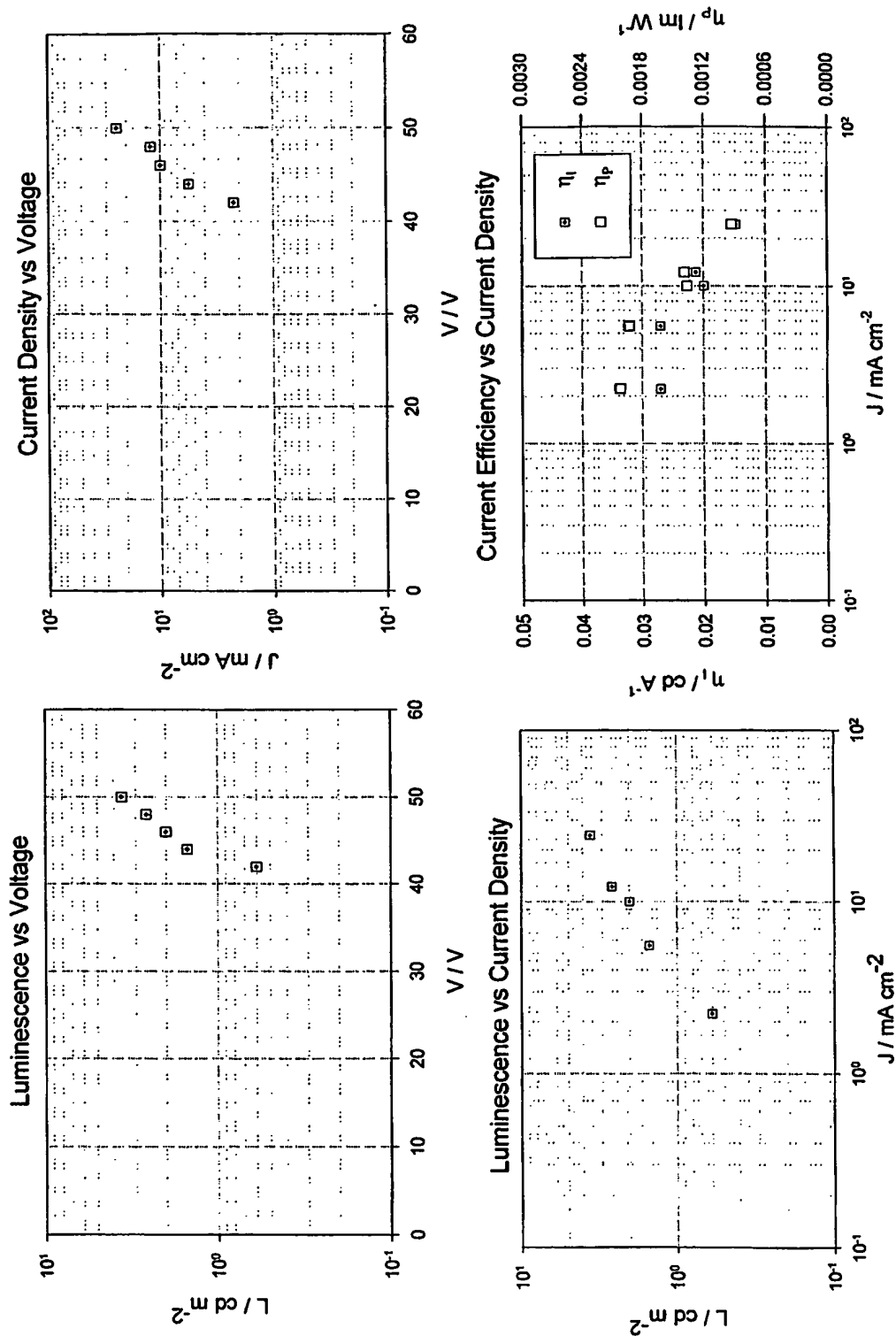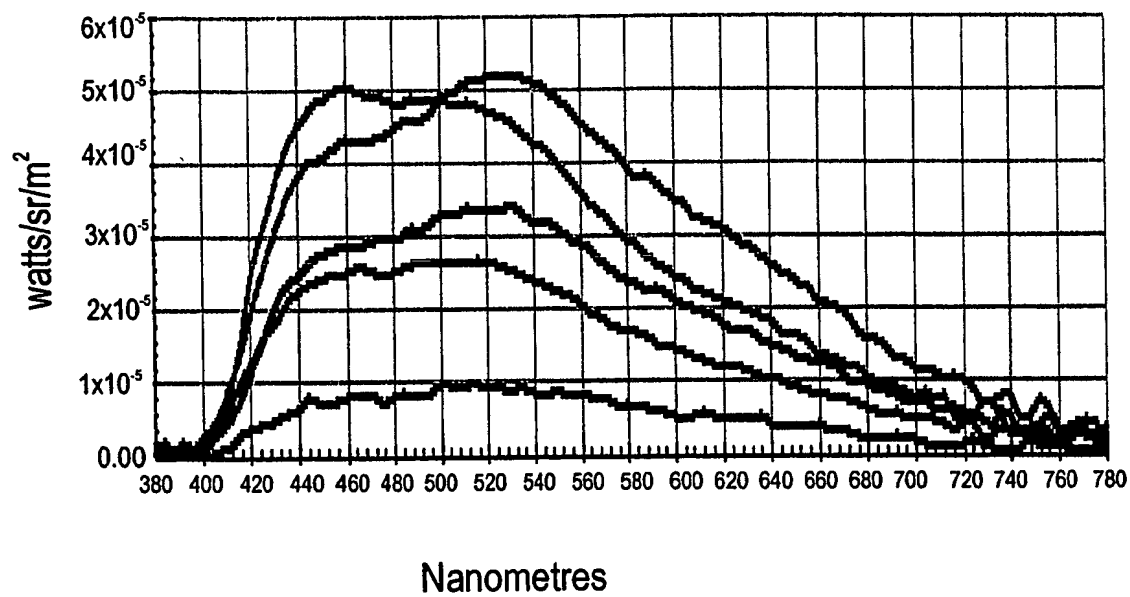

Device 3

Fig. 21

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ITO (100 Ω/sqr)/CuPc (8 nm)/α-NPB (60 nm)/Ca(pyr)₂Phen₂ (10 nm)/Al

Fig. 22

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Spectral radiance Peak @ 536nm

Nanometres

Device 4

Fig. 23